

**DOCKET NO. ATTW01-00047**  
**CUSTOMER NO. 34700**

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of: Siavash Alamouti, et al.

Serial No.: 09/594,467

Filed: June 14, 2000

For: METHODS AND APPARATUS FOR USE IN  
COMMUNICATING VOICE AND HIGH SPEED DATA  
IN A WIRELESS COMMUNICATION SYSTEM

Group No.: 2665

Examiner: Duc C. Ho

**MAIL STOP ISSUE FEE**  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**REQUEST FOR RECONSIDERATION OF PATENT TERM ADJUSTMENT**  
**DETERMINATION UNDER 37 C.F.R. § 1.705(b)**

The Applicants respectfully request that the Patent Office reconsider the patent term adjustment determination for the above-identified patent application. In support, the Applicants submit the following:

1. In the Notice of Allowance dated November 17, 2005, the patent term adjustment was determined to be 831 days. The Applicants believe this determination to be in error.
2. The Applicants believe the correct patent term adjustment should be calculated as

1167 days (an increase of 336 days).

3. This patent application was filed on June 14, 2000.
4. The first Office Action on the merits was mailed on December 17, 2003. The first Office Action on the merits was therefore issued 855 days after fourteen months from the filing date (+855 days).
5. The Applicants' response to the first Office Action was received by the Patent Office on March 18, 2004, resulting in a deduction of 1 day (-1 day). A copy of a stamped postcard is provided in the Appendix, which establishes that the Patent Office did receive the Applicants' response to the first Office Action on March 18, 2004.
6. The second Office Action was mailed on June 1, 2005. The second Office Action was therefore issued 318 days after four months from the Applicants' response to the first Office Action (+318 days).
7. The Applicants' response to the second Office Action was received by the Patent Office on September 6, 2005, resulting in a deduction of 5 days (-5 days).
8. A Notice of Allowance was mailed on November 17, 2005, within four months from the Applicants' response to the second Office Action (+0 days).
9. The Applicants believe the correct patent term adjustment should be calculated as 1167 days (855 days – 1 day + 318 days – 5 days)
10. In the event the Applicants' calculation is incorrect and the Applicants are entitled to a patent term adjustment greater than 1167 days, the Applicants respectfully request the Office to determine and issue the proper patent term adjustment entitled to the Applicants.

Therefore, the Applicants respectfully request that the Office reconsider the determination of patent term adjustment and find that the Applicants are entitled to a patent term adjustment in the amount of 1167 days.

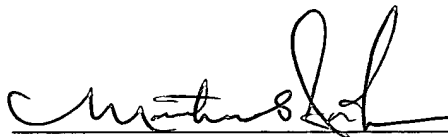
If any issues arise, the Applicants respectfully invite the Office to contact the undersigned at the telephone number indicated below or at *manderson@davismunck.com*.

The Applicants have included the \$200.00 fee for this petition. The Commissioner is hereby authorized to charge any additional fees connected with this communication or credit any overpayment to Davis Munck Deposit Account No. 50-0208.

Respectfully submitted,

DAVIS MUNCK, P.C.

Date: 2/16/10

  
Matthew S. Anderson  
Registration No. 39,093

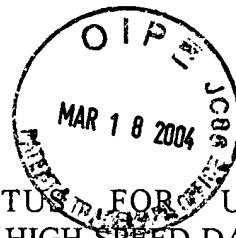
P.O. Drawer 800889  
Dallas, Texas 75380  
(972) 628-3600 (main number)  
(972) 628-3616 (fax)  
E-mail: *manderson@davismunck.com*

**DOCKET NO. ATTW01-00047**  
**SERIAL NO. 09/594,467**  
**PATENT**

## **APPENDIX**

**COPY OF APPLICANTS' RESPONSE TO FIRST OFFICE ACTION  
AND STAMPED POSTCARD RECEIVED FROM PATENT OFFICE**

Mailed: March 15, 2004  
In re. Application of: SIAVASH ALAMOUTI, ET AL.  
Serial Number: 09/594,467  
Filed: June 14, 2000  
Title: METHODS AND APPARATUS FOR USE IN  
COMMUNICATING VOICE AND HIGH SPEED DATA IN A  
WIRELESS COMMUNICATION SYSTEM  
Docket No.: ATTW01-00047 (formerly 1999-0342B (STG168))



The following documents were received in the U.S. Patent and Trademark Office on the date stamped below:

- 1) Check in the amount of \$516.00 for the additional claims filing fee
- 2) Certificate of Mailing by First Class Mail;
- 3) Amendment Transmittal Letter (in duplicate);
- 4) Amendment and Response to Office Action; and,
- 5) Copy of Power of Attorney or Authorization of Agent and Statement Under 37 C.F.R. 3.73(b) filed on January 23, 2004.

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MAR 26 2004

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MAR 23 2004

DAVIS MUNCK

**BEST AVAILABLE COPY**

Mailed: March 15, 2004  
In re. Application of: SIAVASH ALAMOUTI, ET AL.  
Serial Number: 09/594,467  
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Title: METHODS AND APPARATUS FOR USE IN  
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DAVIS MUNCK, P.C. OPERATING ACCOUNT  
A PROFESSIONAL CORPORATION

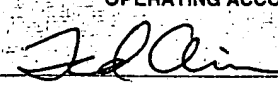
45001

VENDOR: Commissioner of Patents

03/15/2004 CHECK NO: 45001

OUR REF. NO.	YOUR INVOICE NUMBER	INVOICE DATE	INVOICE AMOUNT	AMOUNT PAID	DISCOUNT TAKEN
51199	ATTW01-00047 Additional claims filing fee	3/15/2004	516.00	516.00	

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<b>DAVIS MUNCK, P.C.</b> A PROFESSIONAL CORPORATION 900 THREE GALLERIA TOWER 13155 NOEL ROAD DALLAS, TEXAS 75240 (214) 922-9221		<b>NORTH DALLAS BANK &amp; TRUST CO.</b> 32-96-1110		45001	
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Commissioner of Patents

03/15/2004

45001

51199	ATTW01-00047 Additional claims filing fee	3/15/2004	516.00	516.00
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DOCKET NO.: ATTW01-00047 (formerly 1999-0342 (STG168))  
Customer No.: 34700

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of : SAIVASH ALAMOUTI, ET AL.  
U.S. Serial No. : 09/594,467  
Filed : June 14, 2000  
For : METHODS AND APPARATUS FOR USE IN COMMUNICATING  
VOICE AND HIGH SPEED DATA IN A WIRELESS  
COMMUNICATION SYSTEM  
Group No. : 2665  
Examiner : D. C. Ho

**MAIL STOP FEE AMENDMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

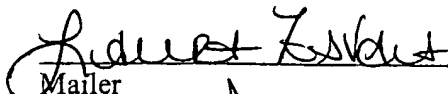
**CERTIFICATE OF MAILING BY FIRST CLASS MAIL**

The undersigned hereby certifies that the following documents:


1. Postcard Receipt;
2. Check in the amount of \$516.00 for the additional claims filing fee;
3. Amendment Transmittal letter (in duplicate);
4. Amendment and Response to Office Action; and,
5. Copy of Power of Attorney or Authorization of Agent and Statement Under 37 C.F.R. 3.73(b) filed on January 23, 2004

relating to the above application, were deposited as "First Class Mail" with the United States Postal Service, addressed to: **MAIL STOP FEE AMENDMENT**, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on March 15, 2004.

Date: 3/15/04

  
\_\_\_\_\_  
Mailer

Date: 3/15/4

  
\_\_\_\_\_  
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DOCKET NO.: ATTW01-00047 (formerly 1999-0342 (STG168))  
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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Group No. : 2665  
Examiner : D. C. Ho

MAIL STOP FEE AMENDMENT

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

AMENDMENT TRANSMITTAL LETTER

Transmitted herewith is an Amendment and Response to Office Action in the above-identified application. The fee has been calculated as shown below.

CLAIMS AS AMENDED					LARGE ENTITY	
(1)	(2) CLAIMS REMAINING AFTER AMENDMENT	(3)	(4) HIGHEST NUMBER PREVIOUSLY PAID FOR	(5) NUMBER OF EXTRA CLAIMS PRESENT	(6) RATE	(7) ADDITIONAL FEE
TOTAL CLAIMS	30	-	30	-0-	X 18.00 =	\$0.00
IND. CLAIMS	12	-	6	-6-	X 86.00 =	\$516.00
TOTAL ADDITIONAL FEE FOR THIS AMENDMENT						\$516.00

Docket No. ATTW01-00047  
Serial Number: 09/594,467  
PATENT

X A check in the amount of \$516.00 is attached.

\_\_\_\_\_ A check in the amount of \$\_\_\_\_\_ for a \_\_\_\_\_-month extension of time is attached.

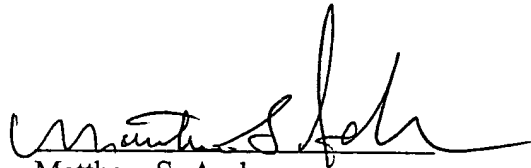
X Please charge any additional fees or credit any overpayment to the Davis Munck Deposit Account No. 50-0208.

A DUPLICATE COPY OF THIS SHEET IS ENCLOSED.

Respectfully submitted,

DAVIS MUNCK, P.C.

Date: 3/15/14



Matthew S. Anderson  
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DOCKET NO. ATTW01-00047 (formerly 1999-0342 (STG168))  
CUSTOMER NO.: 34700

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Group No. : 2665  
Examiner : D. C. Ho

MAIL STOP FEE AMENDMENT

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

AMENDMENT AND RESPONSE TO OFFICE ACTION

A check for additional claim fees is enclosed. No other fees are believed to be necessary; however, in the event that any fees are required for the prosecution of this application, please charge any necessary fees to Deposit Account No. 50-0208. No extension of time is believed to be necessary. If, however, an extension of time is needed, the extension is requested and please charge the fee for this extension to Deposit Account No. 50-0208.

In response to the Office Action dated December 17, 2003, please amend the above-identified application as follows:

**An Amendment to the Attorney's Docket Number** appears on page 3 of this paper.

**Amendments to the Claims** begins on page 4 of this paper.

**Remarks/Arguments** begin on page 21 of this paper.

**IN THE ATTORNEY DOCKET NUMBER:**

Please change the Attorney Docket Number to ATTW01-00047. Previous docket number was 1999-0342 (SGT168).

IN THE CLAIMS:

Following are the current claims. Claims 11, 14, 19, 22, 25, and 30 have been amended to independent form; other claims have NOT been amended in this response, and so any differences in those claims below and the current state of the claims is unintentional and in the nature of a typographical error:

1. (Original) A fixed wireless system utilizing Orthogonal Frequency Division Multiplexing (OFDM) techniques, the fixed wireless system comprising:
  - a wireless base unit;
  - a plurality of fixed wireless remote units;
  - a plurality of wireless voice traffic channels available between the wireless base unit and the plurality of fixed wireless remote units;
  - a plurality of wireless data traffic channels available between the wireless base unit and the plurality of fixed wireless remote units;
  - each wireless traffic channel being identifiable by a unique combination of frequency and time slots;
  - each wireless data traffic channel for carrying high speed data in addressed data packets to and from the plurality of fixed wireless remote units; and
  - each wireless voice traffic channel being assignable to a voice communication call involving one of the plurality of fixed wireless remote units for carrying voice data of the voice communication call.
2. (Original) The fixed wireless system according to claim 1, wherein each wireless voice traffic channel is dedicated for carrying voice data of a voice communication call upon being assigned.

3. (Original) The fixed wireless system according to claim 1, wherein each wireless voice traffic channel is deassignable during a voice communication call.
4. (Original) The fixed wireless system according to claim 1, wherein data in each unique combination of frequency and time slots comprises a plurality of modulated carriers.
5. (Original) A method for use in communicating data in a wireless communication system utilizing Orthogonal Frequency Division Multiplexing (OFDM) techniques, the method comprising:
  - providing a plurality of wireless data traffic channels for carrying high speed data in addressed data packets, each wireless data traffic channel being identifiable by a unique combination of frequency and time slots; and
  - providing a plurality of wireless voice traffic channels for carrying voice data, each wireless voice traffic channel being identifiable by a unique combination of frequency and time slots, each wireless voice traffic channel being assignable to a voice communication call for carrying voice data of the voice communication call.
6. (Original) The method according to claim 5, wherein providing the plurality of wireless voice traffic channels further comprises providing wireless voice traffic channels that are dedicated to carry voice data of a voice communication call upon being assigned.
7. (Original) The method according to claim 5, wherein providing the plurality of wireless voice traffic channels further comprises providing wireless voice traffic channels that are deassignable during a voice communication call.

8. (Original) The method according to claim 5, wherein providing a plurality of wireless voice and data traffic channels involves providing traffic channels that carry data on a plurality of modulated carriers for each unique combination of frequency and time slot in use.
9. (Original) A method of receiving data in a wireless communication system, the method comprising:
- receiving radio frequency (RF) OFDM communication signals over a voice traffic channel that is dedicated to a voice communication call, the voice traffic channel identifiable by a unique frequency/time slot combination;
  - downconverting the RF OFDM communication signals for producing downconverted OFDM communication signals;
  - sampling the downconverted OFDM communication signals for producing OFDM communication signal samples;
  - for each frequency/time slot combination associated with the voice traffic channel:
    - applying a Fast Fourier Transform (FFT) to the OFDM communication signal samples for producing a plurality of modulated tones; and
    - demodulating the plurality of modulated tones for producing voice data of the voice communication call.
10. (Original) The method according to claim 9, further comprising:
- receiving RF OFDM communication signals over a data traffic channel, the data traffic channel identifiable by a unique frequency/time slot combination;
  - for each frequency/time slot combination associated with the data traffic channel:
    - applying an FFT to the OFDM communication signal samples for producing a plurality of modulated tones; and
    - demodulating the plurality of modulated tones for producing high speed data in addressed data packets.



11. (Currently Amended) ~~The method according to claim 10, further comprising~~ A method of receiving data in a wireless communication system, the method comprising:  
receiving radio frequency (RF) OFDM communication signals over a voice traffic channel that is dedicated to a voice communication call, the voice traffic channel identifiable by a unique frequency/time slot combination;  
downconverting the RF OFDM communication signals for producing downconverted OFDM communication signals;  
sampling the downconverted OFDM communication signals for producing OFDM communication signal samples;  
for each frequency/time slot combination associated with the voice traffic channel:  
applying a Fast Fourier Transform (FFT) to the OFDM communication signal samples for producing a plurality of modulated tones;  
demodulating the plurality of modulated tones for producing voice data of the voice communication call;  
receiving RF OFDM communication signals over a data traffic channel, the data traffic channel identifiable by a unique frequency/time slot combination;  
for each frequency/time slot combination associated with the data traffic channel:  
applying an FFT to the OFDM communication signal samples for producing a plurality of modulated tones; and  
demodulating the plurality of modulated tones for producing high speed data in addressed data packets; and  
repeating the following steps for each of a plurality of addressed data packets:  
    comparing a destination address to the addressed data packet with a predetermined address;  
    accepting the addressed data packet if a match exists between the destination address and the predetermined address; and  
    discarding the addressed data packet if the destination address and the predetermined address do not match.

12. (Original) The method according to claim 9, wherein demodulating the plurality of modulated tones comprises producing encoded and compressed data.
13. (Original) The method according to claim 9, wherein demodulating the plurality of modulated tones comprises producing encoded and compressed data, the method further comprising:  
decoding the encoded and compressed data for producing compressed data; and  
decompressing the compressed data for producing the voice data of the voice communication call.

14. (Currently Amended) ~~The method according to claim 13,~~ A method of receiving data in a wireless communication system, the method comprising:  
receiving radio frequency (RF) OFDM communication signals over a voice traffic channel that is dedicated to a voice communication call, the voice traffic channel identifiable by a unique frequency/time slot combination;  
downconverting the RF OFDM communication signals for producing downconverted OFDM communication signals;  
sampling the downconverted OFDM communication signals for producing OFDM communication signal samples; and  
for each frequency/time slot combination associated with the voice traffic channel:  
applying a Fast Fourier Transform (FFT) to the OFDM communication signal samples for producing a plurality of modulated tones; and  
demodulating the plurality of modulated tones for producing voice data of the voice communication call,  
wherein demodulating the plurality of modulated tones comprises producing encoded and compressed data, the method further comprising  
decoding the encoded and compressed data for producing compressed data;  
and  
decompressing the compressed data for producing the voice data of the voice communication call, and  
wherein demodulating comprises demodulating involving 16-Quadrature Amplitude Modulation (QAM), wherein decoding comprises decoding involving Reed-Solomon block codes, and wherein decompressing comprises decompressing involving Code Excited Linear Predictive (CELP) decompression.

15. (Original) A method of transmitting data in a wireless communication system, comprising:

for each frequency/time slot combination associated with a voice traffic channel:

modulating a plurality of tones with voice data of a voice communication call that is assigned to the voice traffic channel;

applying an Inverse Fast Fourier Transform (IFFT) to the plurality of modulated tones for producing Orthogonal Frequency Division Multiplexed (OFDM) communication signal samples;

converting the OFDM communication signal samples to OFDM communication signals;

upconverting the OFDM communication signals for producing radio frequency (RF)

OFDM communication signals; and

transmitting the RF OFDM communication signals over the voice traffic channel.

16. (Original) The method according to claim 15, further comprising:

for each frequency/time slot combination associated with a data traffic channel:

modulating a plurality of tones with high speed data in addressed data packets;

applying an IFFT to the plurality of tones for producing OFDM communication signal samples;

converting the OFDM communication signal samples to OFDM communication signals;

upconverting the OFDM communication signals for producing RF OFDM communication signals; and

transmitting the RF OFDM communication signals over the data traffic channel.

17. (Original) The method according to claim 15, wherein modulation the plurality of tones comprises modulating a phase and amplitude of each one of the plurality of modulated tones.

18. (Original) The method according to claim 15, further comprising:
- compressing the voice data for producing compressed voice data;
  - prior to compressing, encoding the compressed voice data for producing encoded and compressed voice data; and
  - wherein modulating the plurality of tones comprises modulating a phase and amplitude of each one of the plurality of modulated tones with the encoded and compressed voice data.

19. (Currently Amended) ~~The method according to claim 18;~~ A method of transmitting data in a wireless communication system, comprising:  
for each frequency/time slot combination associated with a voice traffic channel:  
modulating a plurality of tones with voice data of a voice communication call  
that is assigned to the voice traffic channel;  
applying and Inverse Fast Fourier Transform (IFFT) to the plurality of  
modulated tones for producing Orthogonal Frequency Division  
Multiplexed (OFDM) communication signals samples;  
converting the OFDM communication signal samples to OFDM  
communication signals;  
upconverting the OFDM communication signals for producing radio frequency (RF)  
OFDM communication signals;  
transmitting the RF OFDM communication signals over the voice traffic channel;  
compressing the voice data for producing compressed voice data;  
prior to compressing, encoding the compressed voice data for producing encoded and  
compressed voice data; and  
wherein modulating the plurality of tones comprises modulating a phase and  
amplitude of each one of the plurality of modulated tones with the encoded  
and compressed voice data;  
wherein modulating comprises modulating using 16-Quadrature Amplitude Modulation (QAM), wherein encoding comprises using Reed-Solomon block codes, and wherein compressing comprises using Code Excited Linear Predictive (CELP) compression.

20. (Original) A wireless receiver, comprising:

- a receiver front end, said receiver front end operative to receive RF OFDM communication signals over a voice traffic channel that is dedicated to a voice communication call, the voice traffic channel identifiable by a unique frequency/time slot combination;
- a radio frequency (RF) downconverter, said RF downconverter operative to downconvert the RF OFDM communication signals for producing downconverted OFDM communication signals;
- an analog-to-digital converter (ADC), said ADC operative to convert the downconverted OFDM communication signals into OFDM communication signal samples;
- a Fast Fourier Transform (FFT) processor, said FFT processor operative to apply and FFT to the OFDM communication signal samples for producing a plurality of modulated tones for each frequency/time slot combination associated with the voice traffic channel; and
- a demodulator, said demodulator operative to demodulate the plurality of modulated tones for each frequency/time slot combination associated with the voice traffic channel for producing voice data of the voice communication call.

21. (Original) The wireless receiver according to claim 20, further comprising:

- said receiver front end being further operative to receive RF OFDM communication signals over a data traffic channel, the data traffic channel identifiable by a unique frequency/time slot combination;
- said FFT processor being further operative to apply and FFT to the RF OFDM communication signal samples for producing a plurality of modulated tones for each frequency/time slot combination associated with the data traffic channel; and
- said demodulator being further operative to demodulate the plurality of modulated tones for each frequency/time slot combination associated with the data

traffic channel for producing the high speed data in addressed data packets.



22. (Currently Amended) ~~The wireless receiver according to claim 21, further comprising:~~ A wireless receiver, comprising:
- a receiver front end, said receiver front end operative to receive RF OFDM communication signals over a voice traffic channel that is dedicated to a voice communication call, the voice traffic channel identifiable by a unique frequency/time slot combination;
  - a radio frequency (RF) downconverter, said RF downconverter operative to downconvert the RF OFDM communication signals for producing downconverted OFDM communication signals;
  - an analog-to-digital converter (ADC), said ADC operative to convert the downconverted OFDM communication signals into OFDM communication signal samples;
  - a Fast Fourier Transform (FFT) processor, said FFT processor operative to apply and FFT to the OFDM communication signal samples for producing a plurality of modulated tones for each frequency/time slot combination associated with the voice traffic channel;
  - a demodulator, said demodulator operative to demodulate the plurality of modulated tones for each frequency/time slot combination associated with the voice traffic channel for producing voice data of the voice communication call;
  - said receiver front end being further operative to receive RF OFDM communication signals over a data traffic channel, the data traffic channel identifiable by a unique frequency/time slot combination;
  - said FFT processor being further operative to apply and FFT to the RF OFDM communication signal samples for producing a plurality of modulated tones for each frequency/time slot combination associated with the data traffic channel;
  - said demodulator being further operative to demodulate the plurality of modulated tones for each frequency/time slot combination associated with the data traffic channel for producing the high speed data in addressed data packets;

and

a processor, said processor operate to compare a destination address of the addressed data packet with a predetermined address, to accept the addressed data packet if a match exists between the destination address and the predetermined address, and to discard the addressed data packet if the destination address and the predetermined address do not match.

23. (Original) The wireless receiver according to claim 20, further comprising:  
said demodulator being further operative for producing encoded and compressed data for each one of the plurality of modulated tones.
24. (Original) The wireless receiver according to claim 20, further comprising:  
said demodulator being further operative for producing encoded and compressed data for each one of the plurality of modulated tones;  
a decoder, said decoder operative to decode the encoded and compressed data for producing compressed data; and  
a decompressor, said decompressor operative to decompress the compressed data for producing the voice data.

25. (Currently Amended) ~~The wireless receiver according to claim 24, further comprising:~~ A wireless receiver, comprising:

a receiver front end, said receiver front end operative to receive RF OFDM communication signals over a voice traffic channel that is dedicated to a voice communication call, the voice traffic channel identifiable by a unique frequency/time slot combination;

a radio frequency (RF) downconverter, said RF downconverter operative to downconvert the RF OFDM communication signals for producing downconverted OFDM communication signals;

an analog-to-digital converter (ADC), said ADC operative to convert the downconverted OFDM communication signals into OFDM communication signal samples;

a Fast Fourier Transform (FFT) processor, said FFT processor operative to apply and FFT to the OFDM communication signal samples for producing a plurality of modulated tones for each frequency/time slot combination associated with the voice traffic channel; and

a demodulator, said demodulator operative to demodulate the plurality of modulated tones for each frequency/time slot combination associated with the voice traffic channel for producing voice data of the voice communication call, said demodulator being further operative for producing encoded and compressed data for each one of the plurality of modulated tones, said demodulator comprising a 16-Quadrature Amplitude Modulated (QAM)-based demodulator;

a decoder, said decoder operative to decode the encoded and compressed data for producing compressed data, said decoder comprising a Reed-Solomon decoder; and

a decompressor, said decompressor operative to decompress the compressed data for producing the voice data, said decompressor comprising a Code Excited Linear Predictive (CELP) decompressor.

26. (Original) A wireless transmitter, comprising:

- a modulator, said modulator operative to modulate a plurality of tones with voice data of a voice communication call for each frequency/time slot combination associated with a voice traffic channel that is assigned to the voice communication call;
- an Inverse Fast Fourier Transform (IFFT) processor, said IFFT processor operative to apply an IFFT to the plurality of modulated tones for each frequency/time slot combination associated with the voice traffic channel for producing Orthogonal Frequency Division Multiplexed (OFDM) communication signals samples;
- a digital-to-analog converter (DAC), said DAC operative to convert the OFDM communication signal samples into OFDM communication signals;
- a radio frequency (RF) upconverter, said RF upconverter operative to upconvert the OFDM communication signals for producing radio frequency (RF) OFDM communication signals; and
- a transmitter front end, said transmitter front end operative to transmit the RF OFDM communication signals over the voice traffic channel.

27. (Original) The wireless transmitter according to claim 26, further comprising:

- said modulator being further operative to modulate a plurality of tones with high speed data for each frequency/time slot combination associated with a traffic channel, the high speed data being carried in addressed data packets;
- said IFFT processor being further operative to apply the IFFT to the plurality of modulated tones for each frequency/time slot combination associated with the data traffic channel for producing OFDM communication signals; and
- said transmitter front end being further operative to transmit the RF OFDM communication signals over the data traffic channel.

28. (Original) The wireless transmitter according to claim 26, further comprising:  
said modulator comprising a phase and amplitude modulator.

29. (Original) The wireless transmitter according to claim 26, further comprising:  
a vocoder, said vocoder operative to compress the voice data for producing  
compressed voice data;  
a block encoder, said block encoder operative to encode the compressed voice data  
for producing encoded and compressed voice data; and  
said modulator being further operative to modulate a phase and amplitude of each  
one of the plurality of tones with encoded and compressed voice data.

30. (Currently Amended) ~~The wireless transceiver according to claim 29, further comprising:~~  
A wireless transmitter, comprising:

a modulator, said modulator operative to modulate a plurality of tones with voice data of a voice communication call for each frequency/time slot combination associated with a voice traffic channel that is assigned to the voice communication call;

an Inverse Fast Fourier Transform (IFFT) processor, said IFFT processor operative to apply an IFFT to the plurality of modulated tones for each frequency/time slot combination associated with the voice traffic channel for producing Orthogonal Frequency Division Multiplexed (OFDM) communication signals samples;

a digital-to-analog converter (DAC), said DAC operative to convert the OFDM communication signal samples into OFDM communication signals;

a radio frequency (RF) upconverter, said RF upconverter operative to upconvert the OFDM communication signals for producing radio frequency (RF) OFDM communication signals; and

a transmitter front end, said transmitter front end operative to transmit the RF OFDM communication signals over the voice traffic channel

a vocoder, said vocoder operative to compress the voice data for producing compressed voice data;

a block encoder, said block encoder operative to encode the compressed voice data for producing encoded and compressed voice data; and

said modulator being further operative to modulate a phase and amplitude of each one of the plurality of tones with encoded and compressed voice data, and said modulator comprising a 16-Quadrature Amplitude Modulation (QAM) modulator;

said block encoder comprising a Reed-Solomon block coder; and

said vocoder comprising a Code Excited Linear Predictive (CELP) vocoder.

**REMARKS**

The Examiner is thanked for his careful and thorough Office Action, and is thanked for the identification of allowable subject matter.

Claims 1-30 are pending in the present application. Claims 11, 14, 19, 22, 25 and 30 were objected to, and have been amended to independent form; claims 1-10, 12, 13, 15-18, 20, 21, 23, 24, and 26-29 were rejected.

Reconsideration of the claims is respectfully requested.

**Claim Rejections -- 35 U.S.C. § 102**

Claims 1-10, 12-13, 15-18, 20-21, 23-24, and 26-29 were rejected as anticipated by Fattouche *et al.* (USP 5,282,222, hereinafter "Fattouche"). These rejections are traversed.

Claim 1 requires "each wireless data traffic channel for carrying high speed data in addressed data packets to and from the plurality of fixed wireless remote units," that does not appear to be explicitly taught by Fattouche, and in particular does not appear to be taught by the passage cited by in the Office Action. This argument also applies to dependent claims 2-4.

With regard to claim 3, nothing in Fattouche appears to teach or suggest the ability to deassign the wireless voice traffic channels.

With regard to claim 5, Fattouche does not appear to teach or suggest "each wireless data traffic channel being identifiable by a unique combination of frequency and time slots" with regard to data traffic channels. This argument applies to claims 5-8.

SUMMARY

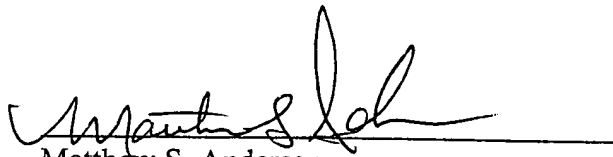
If any issues arise, or if the Examiner has any suggestions for expediting allowance of this Application, the Applicant respectfully invites the Examiner to contact the undersigned at the telephone number indicated below or at *manderson@davismunck.com*.

The Commissioner is hereby authorized to charge any additional fees connected with this communication or credit any overpayment to Davis Munck Deposit Account No. 50-0208.

Respectfully submitted,

DAVIS MUNCK, P.C.

Date: 3/15/4



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Mailed: January 20, 2004  
In re. Application of: SIAVASH ALAMOUTI, ET AL.  
Serial No.: 09/594,467  
Filed: June 14, 2000  
Title: METHODS AND APPARATUS FOR USE IN  
COMMUNICATING VOICE AND HIGH SPEED DATA IN  
A WIRELESS COMMUNICATION SYSTEM  
Docket No.: ATTW01-00047 (formerly 1999-0342(STG168))

The following documents were received in the U.S. Patent and Trademark Office on the date stamped below:

- 1) Certificate of Mailing by First Class Mail; and,
- 2) Combined Revocation of Previous Power of Attorney, Appointment of New Attorneys, and Statement 37 C.F.R. 3.73(b).



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Mailed: January 20, 2004

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DOCKET NO.: ATTW01-00047 (formerly 1999-0342(STG168))  
Customer No. 34700

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of : SIAVASH ALAMOUTI, ET AL.  
Serial No. : 09/594,467  
Filed : June 14, 2000  
For : METHODS AND APPARATUS FOR USE IN COMMUNICATING  
VOICE AND HIGH SPEED DATA IN A WIRELESS  
COMMUNICATION SYSTEM  
Group No. : 2665  
Examiner : D. C. Ho

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

CERTIFICATE OF MAILING BY FIRST CLASS MAIL

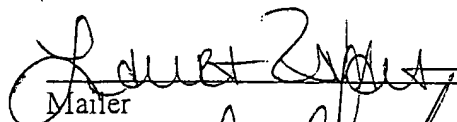
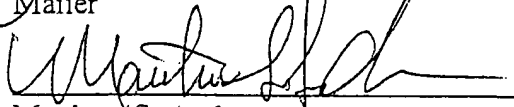
The undersigned hereby certifies that the following documents:

1. Postcard receipt;
2. Combined Revocation of Previous Power of Attorney, Appointment of New Attorneys, and Statement Under 37 C.F.R. 3.73(b)

relating to the above application, were deposited as "First Class Mail" with the United States Postal Service, addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on January 20, 2004.

Date: 1/20/04

Date: 1/20/04

  
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P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

COMBINED REVOCATION OF PREVIOUS  
POWER OF ATTORNEY, APPOINTMENT OF NEW  
ATTORNEYS, AND STATEMENT UNDER 37 C.F.R. 3.73(b)

AT&T WIRELESS SERVICES, INC., a Delaware corporation, states that it is:

The assignee of the entire right, title, and interest in the patent application identified above by virtue  
of:

An assignment from the inventor(s) of the corresponding patent application as identified above.

The assignment was recorded on December 4, 2000 in the United States Patent and Trademark Office  
at Reel 011348, Frame 0438, or for which a copy thereof is attached.

The assignee hereby revokes all previous powers of attorney given.

DOCKET No.: ATTW01-00047

SERIAL No.: 09/594,467

PATENT

The assignee hereby appoints all attorneys assigned to:

**Customer No.: 34700**

as attorneys to prosecute this patent and to transact all business in the United States Patent and Trademark

Office connected therewith.

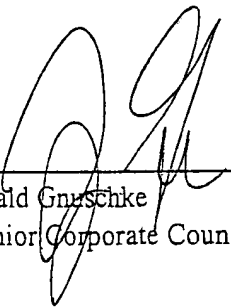
The assignee requests that all correspondence relating to the above-identified patent be addressed  
to:

**Customer No.: 34700**

AT&T WIRELESS SERVICES, INC.

Date: \_\_\_\_\_

1/15/04

  
\_\_\_\_\_  
Jerald Gnuschke  
Senior Corporate Counsel